System Quality Consultants, Inc.

TECHNICAL STATUS REPORT

FOR THE PERIOD ENDING 31 Mar 95

Executive Summary

During this month's reporting period, SQC continued to provide project management support to the Backgrounds Data Center (BDC). In addition to the Product Assurance Manager, SQC provided management of the Quality Assurance, Configuration Management, and Specification and Test efforts. The most significant events that occurred are the continuation of MSX Data System Tests and the continued upgrade to the pipeline software and the operations procedures.

Task 1--Project Management Support

Abstract

This task requires SQC to provide risk management analysis, software cost estimates, procurement strategies, program office organization and staff planning, schedule and resource allocation planning, program planning and documentation, project control system accounting, and training.

Work Performed During MAR 95

Provided Specification & Test (S&T), Quality Assurance (QA), and Configuration Management (CM) input to MSX project GANTT and PERT charts for scheduling and resource allocation planning.

Provided S&T, QA, and CM input to the monthly MSX and Core status reports.

Produced and assisted in the production of GANTT schedules for the BDC.

Continued to revise data bases to streamline PR/CR processing and OCM Library reporting activities.

Provided first cut FY 97 MSX budget projections and WBS plans.

Anticipated Activities During APR 95

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Continue the production of GANTT schedules and PERT charts.

Continue to provide input for budgets, project planning, and monthly status reports.

Continue activities to streamline PR/CR processing and OCM Library reporting activities.

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Task 2--Management Plan Development

Abstract

This task requires SQC to develop and present program management plans, software development plans, configuration management plans, quality assurance plans, test plans, and independent verification and validation plans for use on Naval Research Laboratory's (NRL) programs.

Work Performed During MAR 95

Chaired fourteen (14) Configuration Control Boards (CCB) which processed one hundred thirty-six (136) Problem Report/Change Request (PR/CR) actions. This included fifteen (15)) new PR/CRs, nineteen (19) analyses, sixteen (16) implementations, sixteen (16) validations, and seventy (70) closures.

Continued work on revising the Configuration Management Plan (CMP).

Anticipated Activities During APR 95

Chair CCBs as required.

Produce the first draft of the BDC User's Guide.

Task 3--Detailed Process Development

Abstract

This task requires SQC to develop and present processes (process flow diagrams, step-by-step procedures, quality assurance procedures, and quality checklists) to be used on NRL programs.

Work Performed During MAR 95

Managed work on updating OCM and Archive Library procedures.

Reviewed and signed one (1) OCM procedure.

Updated and signed one (1) OCM procedures.

Updated and/or reviewed eight (8) operational procedures.

Managed the effort to verify Operational process compliance through the use of Quality Assurance audits of procedures. Procedures were redlined and changes were incorporated into the procedures.

Anticipated Activities During APR 95

Continue Operational procedure QA audits.

Continue upgrading the Operational Configuration Management Procedures.

Manage the effort to update OCM and Archive Library procedures.

Task 4--Requirements Development

Abstract

This task requires SQC to meet with NRL scientists, users, customers, and others identified by the Contracting Officer's Technical Representative to document project requirements. SQC is required to document requirements in Type A and Type B specifications. The requirements are to provide program managers with capability for product assessment through analysis and testing of performance parameters. SQC is to determine performance requirements and demonstrate satisfaction through testing.

Work Performed During MAR 95

The BDC to PLDAF ICD was approved by the PLDAF and Data Management. It was released and distributed by BDC OCM.

DCATT approved the BDC to OSDP DPC ICD. It was released and distributed by BDC OCM.

BDC, OSDP DPC, and DM approval signatures have been obtained for the BDC to OSDP DPC ICD. DCATT approval for the BDC to OSDP DPC ICD has been obtained and it was released by BDC OCM.

Version 2.0 of the BDC to MDDC ICD and version 0.0.4 of the BDC to EMDAC ICD have been distributed and are in the review cycle. Review comments have been received from DM. MDDC and EMDAC review comments expected during the next reporting period.

The SDAC to BDC, SPOCC to BDC, and a new revision to the SP3 to BDC ICDs are in the review cycle. A change page for the BDC to SDAC ICD, updating classified addresses, was distributed for review, approval, and inclusion into the ICD prior to execution of DST 3.5A.

A draft ICD for the BDC to TMC DAC was prepared, and the BDC to PDC ICD was updated.

Received a copy of the MDDC to DCATT ICD to use as a template for a BDC to DCATT ICD. Draft of this ICD will be prepared during the next reporting period.

Some review comments for the revised and updated Core and MSX Functional Requirements Documents (FRD) were received during this reporting period.

Anticipated Activities During APR 95

Release the BDC to MDDC, BDC to EMDAC, BDC to TMC DAC, BDC to PDC, and BDC to DCATT ICDs as requirements documents.

Receipt of all review comments for the updated FRDs. Incorporation of the review comments, obtaining approval signatures, and releasing the FRDs from OCM.

Task 5--Documentation Review

Abstract

This task requires SQC to review documents prepared by NRL contractors in a variety of activities for compliance with relevant established standards, development plans, and management plans and to provide comments and recommendations to NRL. The task also requires SQC to perform technical reviews and audits (formal design reviews, informal reviews, and administrative reviews) on NRL's contractor developed hardware, software, facilities, and management documents.

Work Performed During MAR 95

Reviewed draft CM Plan for OCM.

Reviewed final versions of two OCM operational procedures providing change control and PR/CR database access instructions.

Reviewed proposed update to Approved for Shipment Quality Checklist Procedure. Returned comments to originator.

Signed two (2) OCM procedures.

Anticipated Activities During APR 95

Continue updates to the STD.

Provide S&T team support to the review of BDC documents and procedures and DM test procedures.

Review and sign OCM and Archive Library procedures.

Review other documents as required.

Task 6--Technical Information Preparation and Presentation

Abstract

This task requires SQC to prepare and provide formal and informal state-of-the-art techniques presentations in Project and Process Management disciplines.

Work Performed During MAR 95

Attended a Society for Software Quality (SSQ) sponsored National Debate on software quality issues held in the Washington, D.C. area.

Prepared and distributed CCB Minutes.

Prepared and distributed CCB PR/CR Assignment notifications.

Prepared and distributed Status Reports on DM PRs, Overdue PR/CRs and Configuration Item Status Reports.

Revised data bases to provide additional status reports.

Represented the BDC in a meeting with NRL RAIDS Program Manager.

Met with MSX Data Manager and participated in telecons with MSX Data Management team.

Help prepare for visit to BDC from representative or Global Change Data Center, NASA Master Catalog.

Help prepare for visit to BDC from representatives from UK Defense Research Agency.

Anticipated Activities During APR 95

Prepare and distribute CCB Minutes.

Prepare and distribute Status Reports on DM PRs, Overdue PR/CRs and Configuration Item Status Reports.

Participate in review of Summary Catalog and associate functionality.

Participate in review of VISTA and in planning for the future.

Represent BDC at meeting with MSX PIs.

Meet with MSX Data Manager.

Task 7--Formal Test Case and Test Procedure Development and Execution

Abstract

This task requires SQC to develop and execute detailed test cases and procedures designed to validate designated developed products prior to their being declared operational. The testing must demonstrate that all system elements satisfy NRL requirements. SQC must also verify that testing spans the overall acquisition cycle.

Work Performed During MAR 95

Managed and provided guidance for the preparation of formal test cases, test case descriptions, and test procedures. During this reporting period, operators continued execution of OCM controlled test procedures.

During the reporting period, SQC continued the management of and coordinated the planning and preparation activities necessary to successfully execute Data System Tests (DST). These activities included receipt and processing of DST 3.7 Level 1A data from the MOC and data products from SP3, CE, and UVISI DPCs. Ingest and extraction anomalies were uncovered during execution of the test. PR/CRs were initiated and are in analysis. DM was alerted to the problems. Should the

results of the analysis warrant, DM PRs will be initiated during the next reporting period. The DM Test Procedure for DST 3.5A was distributed for review. A pretest walkthrough of the BDC operating procedures was performed and a DST 3.5A pretest checklist was completed and returned to DM, per test procedure instructions. Participated in a DST 3.5A pretest teleconference with DM and other participating agencies.

Activities also accomplished this reporting period include tracking the status of Operator Discrepancy Forms (ODF), PR/CRs and Data Management (DM) Problem Reports (PR), monitoring approved revisions to the MSX pipeline software, and operating procedures, the retesting effort, and closing open DST issues. Worked with Operations and Software Development to find solutions to new problems which were encountered.

The Specification & Test team, under SQC's management, acted as the central repository for problem reporting and resolution. This included coordination of problem resolution both internally at the BDC and externally between the other participating MSX data organizations. During this reporting period, one DM PR was closed (DM PR BDC38) and another initiated for header anomalies found in .CSR files during execution of DST 3.7.

Anticipated Activities During APR 95

Complete DST 3.7 by receiving and processing data products from SPOCC and OSDP DPC. Initiate DST 3.5A. Prepare for and initiate DSTs 5.4B and 5.6A.

Continue managing the FOC testing activities, including revision of test cases/procedures, preparing new test cases/procedures, and executing the test procedures.

Continue closure actions for open PR/CRs and DM PRs assigned to the S&T team.

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2. The Defense Technical Information Center received the enclosed report (referenced below) which is not marked in accordance with the above reference.

TECHNICAL REPORT/ENDING 31 MAR
N00014-94-C-2063
TITLE: SYSTEM QUALITY
CONSULTANTS INC

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